

### ABSTRACT OF THE DISCLOSURE

A method and apparatus for processing meat is provided. According to the method, a meat product is positioned within an interior volume of a decompression chamber. A pressure differential is created across a gas output in communication with the interior volume of the decompression chamber. The decompression chamber is then rapidly decompressed by transferring gas from the interior volume of the decompression chamber through the gas output. The pressure differential and the rate of the rapid decompression are selected to be suitable for processing the meat product positioned within the interior volume of the decompression chamber. Typically, the pressure differential and the rate of rapid decompression are selected to be suitable for tenderizing the meat product, killing microorganisms in the meat product, or both.